IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 43-44, and ADD new claims 45-48 in accordance with the following:

Claim 1 (Previously Presented): An optical recording medium, comprising:

a wobbled track on which user data is recorded, wherein a wobble signal ~~recorded~~ included on the wobbled track is a single-frequency signal having edge-modulated first header information, wherein the edge-modulated first header information is based on first and second signals having a same frequency but different edge waveforms.

Claims 2-3 (Cancelled):

Claim 4 (Original): The optical recording medium of claim 1, wherein the first header information contains addressing information.

Claim 5 (Original): An apparatus recording a wobble signal on an optical recording medium, the apparatus comprising:

a wobble signal generator generating a single-frequency wobble signal having header information which is edge-modulated based on first and second carrier signals having a same frequency and different edge waveforms; and

a recording unit recording the wobble signal generated by the wobble signal generator on the optical recording medium.

Claim 6 (Original): The apparatus of claim 5, wherein the wobble signal generator comprises:

a clock generator generating a clock signal;

a carrier signal generator generating the first and second carrier signals based on the clock signal; and

an edge-modulator that receives header information and edge-modulates the header information using the first and second carrier signals output from the carrier signal generator based on the clock signal.

Claim 7 (Original): The apparatus of claim 6, wherein the edge-modulator transforms high and low levels of digital data representing the header information into the first and second carrier signals, respectively, to modulate the digital data into an analog signal.

Claim 8 (Original): The apparatus of claim 7, wherein the header information contains addressing information.

Claims 9-10 (Cancelled):

Claim 11 (Original): A method of recording a wobble signal on an optical recording medium, the method comprising the operations of:

generating first and second carrier signals having a same frequency and different edge waveforms;

generating a single-frequency wobble signal having header information which is edge-modulated using the generated first and second carrier signals; and

recording the generated single-frequency wobble signal on the optical recording medium.

Claim 12 (Previously Presented): The method of claim 11, wherein the operation of generating a single-frequency wobble signal further comprises:

generating a clock signal; and

edge-modulating header information using the first and second carrier signals in accordance with the generated clock signal.

Claim 13 (Original): The method of claim 12, wherein, the operation of

edge-modulating header information comprises transforming high and low levels of digital data representing header information into the first and second carrier signals, respectively, to modulate the digital data into an analog signal.

Claim 14 (Original): The method of claim 13, wherein the header information contains addressing information.

Claims 15-32 (Cancelled):

Claim 33 (Original): The apparatus of claim 6, wherein the second carrier signal is a sine wave.

Claims 34-42 (Cancelled):

Claim 43 (Currently Amended): An optical recording medium, comprising:

a wobbled track on which user data is recorded, wherein a wobble signal ~~recorded~~ included on the wobbled track is a single-frequency signal having edge-modulated first header information, wherein the edge-modulated first header information is based on a first signal having the single-frequency with a first waveform shape and a second signal having the single-frequency with a second waveform shape different from the first waveform shape.

Claim 44 (Currently Amended): An apparatus recording a wobble signal on an optical recording medium, the apparatus comprising:

a wobble signal generator generating a single-frequency wobble signal having header information which is edge-modulated based on a first signal having the single-frequency with a first waveform shape and a second signal having the single-frequency with a second waveform shape different from the first waveform shape; and

a recording unit recording the wobble signal generated by the wobble signal generator on the optical recording medium.

Claim 45 (New): The optical recording medium of claim 1, wherein

the first header information contains addressing information.

Claim 46 (New): The apparatus of claim 44, wherein the wobble signal generator comprises:

a clock generator to generate a clock signal;

a carrier signal generator to generate the first and second signals based on the clock signal; and

an edge-modulator to receive header information and edge-modulate the header information using the first and second signals output from the carrier signal generator based on the clock signal.

Claim 47 (New): The apparatus of claim 46, wherein the edge-modulator transforms high and low levels of digital data representing the header information into the first and second signals, respectively, to modulate the digital data into an analog signal.

Claim 48 (New): The apparatus of claim 47, wherein the header information contains addressing information.